Naphthalene, 1,2-dihydro-1,5,8-trimethyl-

Other names: 1,2-Dihydro-1,5,8-trimethylnaphthalene
Inchi: InChI=1S/C13H16/c1-9-7-8-11(3)13-10(2)5-4-6-12(9)13/h4,6-8,10H,5H2,1-3H3
InchiKey: YJFOZRTWRVNHOG-UHFFFAOYSA-N
Formula: C13H16
SMILES: Cc1ccc(C)c2c1C=CCC2C
Mol. weight [g/mol]: 172.27
CAS: 4506-36-9

Physical Properties

Property code	Value	Unit	Source
gf	220.71	kJ/mol	Joback Method
hf	14.89	kJ/mol	Joback Method
hfus	19.56	kJ/mol	Joback Method
hvap	49.17	kJ/mol	Joback Method
log10ws	-4.33		Crippen Method
logp	3.824		Crippen Method
mcvol	155.110	ml/mol	McGowan Method
pc	2527.73	kPa	Joback Method
rinpol	1376.20		NIST Webbook
rinpol	1354.00		NIST Webbook
rinpol	1354.00		NIST Webbook
rinpol	1377.60		NIST Webbook
rinpol	1376.20		NIST Webbook
tb	548.63	K	Joback Method
tc	773.57	K	Joback Method
tf	315.43	K	Joback Method
vc	0.591	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	362.42	J/mol×K	548.63	Joback Method
cpg	439.18	J/mol×K	736.08	Joback Method
cpg	425.75	J/mol×K	698.59	Joback Method

cpg	411.41	J/mol×K	661.10	Joback Method
cpg	396.11	J/mol×K	623.61	Joback Method
cpg	379.80	J/mol×K	586.12	Joback Method
cpg	451.75	J/mol×K	773.57	Joback Method
dvisc	0.0003143	Pa×s	548.63	Joback Method
dvisc	0.0003620	Pa×s	509.76	Joback Method
dvisc	0.0004267	Pa×s	470.90	Joback Method
dvisc	0.0005181	Pa×s	432.03	Joback Method
dvisc	0.0006536	Pa×s	393.16	Joback Method
dvisc	0.0008679	Pa×s	354.30	Joback Method
dvisc	0.0012357	Pa×s	315.43	Joback Method

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method: https://en.wikipedia.org/wiki/Joback_method
McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C4506369&Units=SI

Legend

cpg: Ideal gas heat capacity
dvisc: Dynamic viscosity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfus: Enthalpy of fusion at standard conditions
hvap: Enthalpy of vaporization at standard conditions
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
pc: Critical Pressure
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume